

REMARKS

This Amendment responds to the Office Action mailed August 22, 2007, in the above-identified application. Based on the foregoing amendments and the following comments, reconsideration and allowance of the application are respectfully requested.

Claims 1-38 were previously pending in the application. Claims 13-24 and 37 have been withdrawn from consideration. Claims 8 and 34 have been amended. Accordingly, claims 1-12, 25-36 and 38 are currently pending, with claims 1 and 25 being independent claims. No new matter has been added.

The Examiner has objected to claims 8 and 34 because of informalities. Claims 8 and 34 have been amended to correct the informalities, and withdrawal of the objection is respectfully requested.

Claim 8 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner asserts that the limitation “the different node” in claim 8 lacks antecedent basis and that the limitation “a last node” is unclear. Claim 8 has been amended to delete the recitation of a “different” node. The last node recited in claim 8 refers to the node in the second organization where the message leaves the second organization and enters the first organization. It is submitted that amended claim 8 is in compliance with 35 U.S.C. §112, second paragraph, and withdrawal of the rejection is respectfully requested.

The Examiner has rejected claims 1, 2, 5, 11 and 36 under 35 U.S.C. §103(a) as unpatentable over Scribe (Article entitled: “Scribe: A Large-Scale and Decentralized Application-Level Multicast Infrastructure”) in view of Feigenbaum et al (U.S. 4,718,005) and Crockett et al. (U.S. 2003/0154243). Claims 3, 4 and 12 are rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Feigenbaum et al. and Crockett et al., further in view of Speakman et al. (U.S. 6,389,475). Claim 6 is rejected under 35 U.S.C. §103(a) as unpatentable

over Scribe in view of Feigenbaum et al. and Crockett et al., further in view of Jonsson (U.S. 2003/0162499). Claim 7 is rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Feigenbaum et al., Crockett et al., and Jonsson, further in view of mail.yahoo.co.uk. Claim 8 is rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Feigenbaum et al., Crockett et al., and Jonsson, further in view of Novaes et al. (U.S. 20030012130). Claim 9 is rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Feigenbaum et al., Crockett et al., Jonsson and Novaes et al., further in view of Speakman et al. Claim 10 is rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Feigenbaum et al., Crockett et al., Jonsson, Novaes et al., and Speakman et al., further in view of Burbeck et al (U.S. 7,143,139). Claims 25, 26, 27 and 38 are rejected under 35 U.S.C. § 103(a) as unpatentable over Scribe in view of Speakman et al. and O'Sullivan (Article entitled: "The Internet Multicast Backbone"). Claim 28 is rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Speakman et al., and O'Sullivan, further in view of Novaes et al. Claims 29 and 30 are rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Speakman et al, O'Sullivan and Novaes et al., further in view of Stanko (U.S. 2005/0074126). Claim 31 is rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Speakman et al, O'Sullivan, Novaes et al., and Stanko, further in view of Traversat et al (U.S. 2002/0143855). Claims 32 and 35 are rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Speakman et al. and O'Sullivan, further in view of Novaes et al. Claims 33 and 34 are rejected under 35 U.S.C. §103(a) as unpatentable over Scribe in view of Speakman et al. and O'Sullivan, further in view of Burbeck et al. The rejections are respectfully traversed.

The Scribe multicasting infrastructure is described at page 3, line 11 to page 4, line 8 of the present application.

Feigenbaum discloses techniques which permit data processing systems linked to nodes of a communication network to create and use alias names on a distributed basis, and thereby to sustain data communications between resources known by various names, and distributed throughout the network, without dependence on a central or master directory (Col. 1, lines

38-43). In discussing extension of name communications through nodal bridges and gateways, Feigenbaum describes topological restrictions on the transfer of requests across network boundaries (Col. 11, lines 14-58).

Crockett describes a method and apparatus for registering a user in a group communication network, including a location server that maintains user location information (§0048). Crockett states that the user location information may be the IP address of the client, regardless of whether the client is connected via wireless or wireline services (§0096).

Speakman describes content based filtering of multicast information. A set of sources that wishes to distribute information in different categories each associates a content descriptor with messages containing information in those categories. A mapping server associates a multicast address and a content mask with each content descriptor, so that network elements can distribute only those messages which are of interest to recipients in multicast distribution trees (Col. 1, lines 55-67).

O'Sullivan describes the Internet multicast backbone and states that the multicast backbone is a cooperative voluntary effort, consisting of Internet service providers who route multicast traffic over their networks and end users who install multicast routers at their sites (Background).

Claim 1 is directed to a method of providing a scalable multicast infrastructure for multicast messaging on an overlay network including a set of nodes, wherein each node in the set of nodes has a node name indicating a network region of the node, the method comprising: disseminating messages through a multicast tree formed from a subset of the set of overlay nodes, wherein a root node of the multicast tree belongs to a first network region and a path in the multicast tree is prohibited from reentering the first network region once the path leaves the first network region.

Applicant submits that Feigenbaum does not disclose or suggest a network wherein *a path in the multicast tree is prohibited from reentering the first network region once the path*

leaves the first network region, as required by claim 1. To the contrary, Feigenbaum describes a broadcast communication provided with a hop count that restricts its transfer across network boundaries. The hop count indicates the number of network boundaries which the communication may cross (Col. 11, lines 19-27). Feigenbaum also states that a zero hop count value prevents further forwarding so that messages crossing between B and C could not reenter A (Col. 11, lines 46-49). However, providing a hop count which has the effect of preventing further forwarding when the hop count decrements to zero is very different from the claim 1 limitation wherein “a path in the multicast tree is prohibited from reentering the first network region *once the path leaves the first network region*” (emphasis added). Feigenbaum does not disclose or suggest this limitation. Scribe and Crockett do not provide the teachings that are lacking in Feigenbaum. For at least these reasons, claim 1 is clearly and patentably distinguished over Scribe in view of Feigenbaum and Crockett, and withdrawal of the rejection is respectfully requested.

Claims 2-12 and 36 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Claim 25 is directed to a method of participating in a scalable multicast infrastructure for multicast messaging on an overlay network including a set of nodes, the method comprising: joining a first multicast tree including overlay nodes in an overlay routing path between a subscriber node and a root node of the first multicast tree, and joining a second multicast tree formed from the first multicast tree, wherein the second multicast tree includes a subset of the overlay nodes in the first multicast tree, the subset consisting of only nodes that voluntarily participate in message dissemination.

Regarding claim 25, the Examiner asserts that Speakman shows joining a second multicast tree formed from the first multicast tree, wherein the second multicast tree includes a subset of the overlay nodes in the first multicast tree. Applicant must respectfully disagree. Speakman describes content based filtering of multicast information. Speakman states that each

recipient obtains the associated source, multicast address, and content mask, for each content descriptor of interest, and uses that information to join the multicast distribution tree for that information (col. 2, lines 1-12). Thus, Speakman does not describe or suggest joining a second multicast tree formed from a first multicast tree, wherein the second multicast tree includes a subset of overlay nodes.

Regarding claim 25, the Examiner further asserts that O'Sullivan shows the subset consisting of only nodes that voluntarily participate in message dissemination. Again, Applicant must respectfully disagree. O'Sullivan does no more than state that the multicast backbone is a cooperative voluntary effort. The "cooperative voluntary effort" described by O'Sullivan is very different from a subset of nodes that voluntarily participate in message dissemination, as claimed. Further, the combined teachings of Speakman and O'Sullivan would not suggest to the skilled person "joining a second multicast tree formed from the first multicast tree wherein the second multicast tree includes a subset of the overlay nodes in the first multicast tree, the subset consisting of only nodes that voluntarily participate in message dissemination." For at least these reasons, claim 25 is clearly and patentably distinguished over Scribe in view of Speakman and O'Sullivan, and withdrawal of the rejection is respectfully requested.

Claims 26-35 and 38 depend from claim 25 and are patentable over the cited references for at least the same reasons as claim 25.

Based upon the above discussion, claims 1-12, 25-36 and 38 are in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: November 21, 2007

Respectfully submitted,

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